

### Abstract

The present invention relates generally to high-throughput assay methods that determine the proliferative status of hematopoietic stem and progenitor cells. The present invention further relates to high-throughput assays for screening compounds that modulate the growth of hematopoietic stem and progenitor cells and for identifying subpopulations thereof that are suitable for transplantation. The assay of the present invention is particularly useful for quality control and monitoring of the growth potential in the stem cell transplant setting and would provide improved control over the reconstitution phase of transplanted cells.

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